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### REMARKS

The following is intended as a full and complete response to the Office Action mailed on January 10, 2005. Claims 1-7 were examined. The Examiner rejected claims 1-2, 4 and 6-7 under 35 U.S.C. § 102(b) as anticipated by Daza (M. Daza, et al., "All-Optical WDM-to-TDM Conversion with Total Capacity of 33 Gb/s for WDM Network Links," IEEE Journal of Selected Topics in Quantum Electronics, Vol. 3, No. 5, October 1997), claim 3 under 35 U.S.C. § 103(a) as obvious in view of Daza in combination with Mikkelsen (U.S. Patent No. 6,614,582), and claim 5 under 35 U.S.C. § 103(a) as obvious in view of Daza in combination with Tai (U.S. Patent No. 6,275,322). The Examiner also objected to the figures.

In response, Applicant is amending claim 1, canceling claims 6-7 and adding new claims 8-20.

### Objection to the Drawings

The Examiner objected to Figures 1 and 2 because there are no descriptive legends for the boxes. Applicant respectfully traverses. 37 CFR 1.84(o) states only that suitable descriptive legends may be required where necessary for understanding the drawings (emphasis added). All of the elements in both Figures 1 and 2 are clearly numbered and described plainly in the text of the specification. One skilled in the art (or otherwise) can therefore easily comprehend the elements and systems set forth in these figures, as originally filed. For these reasons, Applicant requests that the objection to the drawings be withdrawn.

### Rejections under 35 U.S.C. § 102(b) and § 103(a)

Claim 1, as amended, recites the limitation of an optical clock that includes a multiplier and a laser and is configured to receive a clock signal at a frequency  $F/n$  and generate an optical clock signal at frequency  $F$ . Neither Daza nor any of the other cited references teaches or suggests this limitation.

Daza does not teach an optical clock having the structure of that recited in amended claim 1. Daza discloses only a hybrid mode-locked semiconductor laser (HML-SL) that outputs a high repetition rate optical pulse. There is no specific teaching or suggestion that the HML-SL has the same structure as the optical clock recited in amended claim 1. For this reason, Applicant contends that Daza does not teach or suggest each and every limitation of amended claim 1 and therefore cannot anticipate amended claim 1 or claims 2 and 4, dependent thereon. Further, neither Mikkelsen

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nor Tai discloses an optical clock with structure of that recited in amended claim 1 either. For these reasons, Applicant contends that no combination of cited references renders amended claim 1 or claims 2-5, dependent thereon, obvious.

For these reasons, Applicant respectfully submits that amended claim 1 and claims 2-5, dependent thereon, are in condition for allowance and requests that the §102(b) and §103(a) rejections of the claims be withdrawn.

#### New Claims

New claims 8-10 depend on allowable amended claim 1 and therefore are allowable for at least the same reasons as amended claim 1. In addition, these claims include limitations that further define the structure of the optical clock recited in amended claim 1, none of which are disclosed or suggested in any of the cited references.

New claim 11 depends on allowable amended claim 1 and therefore are allowable for at least the same reasons as amended claim 1. In addition, this claim includes a limitations specifying that the optical multiplexer recited in amended claim 1 includes a first and a second optical data access and that the n interleaved wavelength channels are launched in parallel on both of these optical data accesses. None of the cited references discloses or suggests these limitations.

New claim 12 depends on allowable amended claim 1 and therefore are allowable for at least the same reasons as amended claim 1. In addition, this claim recites a specific structure for the semiconductor optical amplifier Mach-Zehnder interferometer that is not disclosed or suggested in Mikkelsen or any of the other cited references.

New claims 13-20 recite limitations similar to those described above in connection with amended claim 1 and new claims 8-12. The cited references therefore do not teach or suggest each and every limitation of any of these claims either.

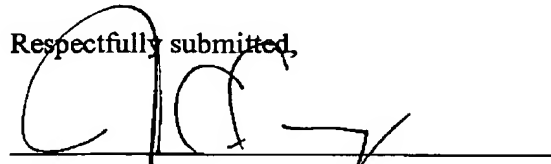
As the foregoing illustrates, none of the cited references, individually, teaches or suggests each and every limitation of new claims 8-20. Further, no combination of the cited references teaches or suggests each and every limitation of new claims 8-20 either. For these reasons, Applicant submits that these claims are in condition for allowance.

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**Conclusion**

Based on the above remarks, Applicant believes that he has overcome all of the rejections set forth in the Office Action mailed January 10, 2005, and that the pending claims are in condition for allowance. If the Examiner has any questions, please contact the Applicant's undersigned representative at the number provided below.

Respectfully submitted,



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